REMARKS

I. General

Claims 1-55 are pending in the present application. Applicant notes with appreciation that the Examiner has allowed claims 1-25 and 29-55. Claims 26-28 stand rejected under 35 U.S.C. § 103. Applicant respectfully traverses the rejections of record.

II. The 35 U.S.C. § 103 Rejections

Claims 26-28 stand rejected under 35 U.S.C. § 103(a) as being obvious over Anderson, United States patent number 3,842,247 (hereinafter *Anderson*). However, to establish a *prima facie* case of obviousness, three basic criteria must be met, see M.P.E.P. § 2143. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. Without conceding the second criteria, Applicant respectfully asserts that the reference does not teach or suggest all the claim limitations and that proper motivation to modify the reference has not been provided.

In rejecting claim 26, the Office Action concedes that *Anderson* does not teach linearizing a phase change versus frequency change curve to form a line and deriving the path's delay from the slope of the line, see the Office Action at page 2. Nevertheless, the Office Action states that "linearizing a straight line from the graph as shown in Fig. 1 is equivalent to obtaining a straight line with a slope calculated from the average value of phases divided by the average value of frequencies," id. However, whether the foregoing is true or not is not dispositive of the patentability of the claim.

Claim 26 expressly recites "linearizing the generated curve to form a line; and deriving the path's delay from the slope of the line." It cannot be said that deriving a straight line from a previously calculated value of path delay meets the steps set forth in the claim. Indeed, a generated curve has not been linearized and a path delay has not been determined from the slope of the line. Instead the opposite is performed, that being a path delay is determined and the slope of a line is determined from the already determined path delay in the Examiner's proffered situation. Claim 26 sets forth a method including specific steps

which simply are not met and cannot be met by the equivalency relied upon in the Office Action as a basis for the 35 U.S.C. § 103 rejection.

The rejection of record opines that "since linearizing a straight line from a plurality of measurement values is well known to one skill [sic: skilled] in the art of statistic, it would have been obvious to one skill [sic: skilled] in the art to modify *Anderson* to replace the average value of delays with the slope value obtained from linearizing the phase versus frequency characteristic graph as claimed, for improving the accuracy of the delay estimation (i.e., an extremely spurious measured data could be visually spotted and eliminated from linearizing the graph)," the Office Action at page 3. However, the foregoing does not establish proper motivation for the proffered modification to *Anderson* as the reasoning is circular.

In particular, the Office Action first states that the slope of a line linearizing the graph of Figure 1 of *Anderson* could be derived from the average value of phases divided by the average value of frequencies, which the Examiner asserts to be taught in *Anderson*, and the path's delay determined from the slope of this line. Then the Office Action concludes that such a straight line would provide for improved accuracy in determining the path's delay over the average value calculation of *Anderson*, although the exact same value (i.e., calculated average value or line slope representing the calculated average value) is used in deriving the path's delay. Such language is merely a statement that the reference can be modified, and does not state any desirability for making the modification as the same result would be provided in either situation. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination, see M.P.E.P. § 2143.01 (citing In re Mills, 16 U.S.P.Q.2d 1430 (Fed. Cir. 1990)). Thus, the motivation provided in the Office Action is improper, as the motivation must establish the desirability for making the modification.

Claim 27 expressly recites the use of a least squares methodology in linearizing the phase change versus frequency change curve. The fundamental underpinning for the rejection of record is that linearizing a straight line from the graph in Figure 1 of *Anderson* is equivalent to obtaining a straight line with a slope calculated from the average value of phases divided by the average value of frequencies, see the Office Action at page 2. In rejecting claim 27, the Office Action states that it would have been obvious to use a least

squares method when linearizing a curve because this would provide an optimal estimation error in statistics. However, in meeting the limitations of base claim 26, the Office Action relies upon the use of the average value of phases divided by the average value of frequencies, as asserted by the Examiner to be taught in *Anderson*, to find the limitation "linearizing the generated curve to form a line" obvious. Now the Office Action supplants this underlying argument with the assertion that it would have been obvious to use a least squares methodology instead of an average value. Accordingly, the modification of *Anderson* relied upon in rejecting claim 27 would result in the limitations of base claim 26 not being met and, therefore, a proper rejection of claim 27 under 35 U.S.C. § 103 has not been established.

Claim 28 recites "measuring the phase at the path output . . . ." This limitation remains unaddressed by the rejection of record. As M.P.E.P. § 706.02(j) directs the Examiner to set forth in the Office action: (1) the relevant teachings of the prior art relied upon; (2) the difference or differences in the claim over the applied references; (3) the proposed modification of the applied references necessary to arrive at the claimed subject matter; and (4) an explanation why one of ordinary skill in the art at the time the invention was made would have been motivated to make the proposed modification, it is respectfully asserted that the rejection of record with respect to claim 28 is improper.

Moreover, Applicant respectfully asserts that *Anderson* does not teach or suggest at least the above identified aspect of claim 28. In particular, *Anderson* teaches a summer and level detector coupled to the facility under test, see column 4, lines 11-16. Accordingly, *Anderson* discloses measuring a signal level at an output of the facility under test, see column 4, lines 13-16. Applicant respectfully asserts that the foregoing disclosure of *Anderson* is insufficient to teach or suggest the limitations of claim 28 under 35 U.S.C. § 103.

III. Summary

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to pass this application to issue.

Applicant believes no fee is due with this response. However, if a fee is due, please charge our Deposit Account No. 06-2380, under Order No. 65948/P037US/10315913 from which the undersigned is authorized to draw.

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Respectfully submitted,

By _____

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